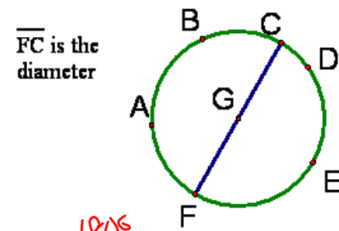


Quiz 11.1-11.4 Mon

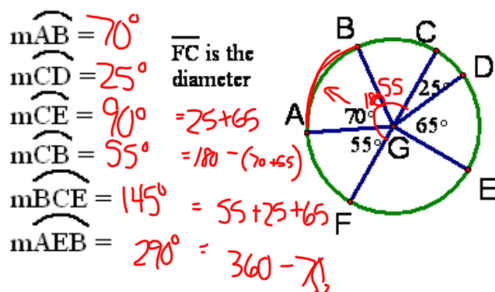
11-3 Arcs and Central Angles



Semicircle- measures \widehat{FAC} (name with 3 letters) 180°
 Minor arc-measures less than \widehat{FA} (name with 2 letters) 180°
 Major arc- measures more than \widehat{FDA} (name with 3 letters) 180°

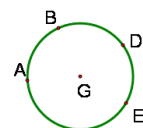
Central Angle-is an angle whose vertex is the center of the circle and whose sides are radii.
 ex: $\angle AGB$

The measure of a minor arc is the measure of its central angle.



Postulate 16-Arc Addition Postulate-The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs.

$$m\widehat{AD} = m\widehat{AB} + m\widehat{BD}$$



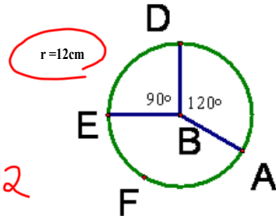
Arc Length is a portion of the circumference

$$\text{Arc Length} = \frac{\text{Angle}}{360^\circ} \cdot 2\pi r$$

Find the length of \widehat{ED} =

$$l = \frac{90}{360} \cdot 2\pi \cdot 12$$

$$l = 6\pi$$



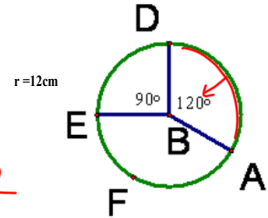
$$\text{Arc Length} = \frac{\text{Angle}}{360^\circ} \cdot 2\pi r$$

Find the length of \widehat{AD} =

$$l = \frac{120}{360} \cdot 2\pi \cdot 12$$

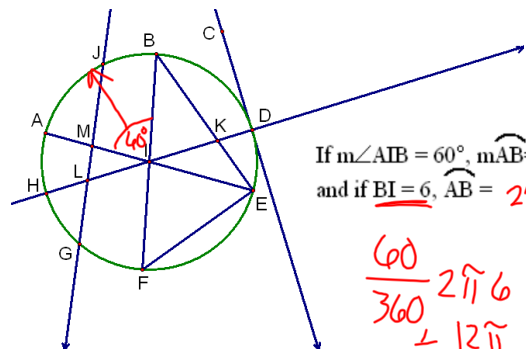
$$l = \frac{1}{3} \cdot 24\pi$$

$$l = 8\pi \text{ cm}$$



measure of an arc uses degrees

length of an arc uses π



If $m\angle AIB = 60^\circ$, $m\widehat{AB} = 60^\circ$
and if $BI = 6$, $\widehat{AB} = 2\pi$

$$\frac{60}{360} \cdot 2\pi \cdot 6$$

$$= \frac{1}{6} \cdot 12\pi$$

$$= 2\pi$$

HW

p604-606

13-39, 47-49